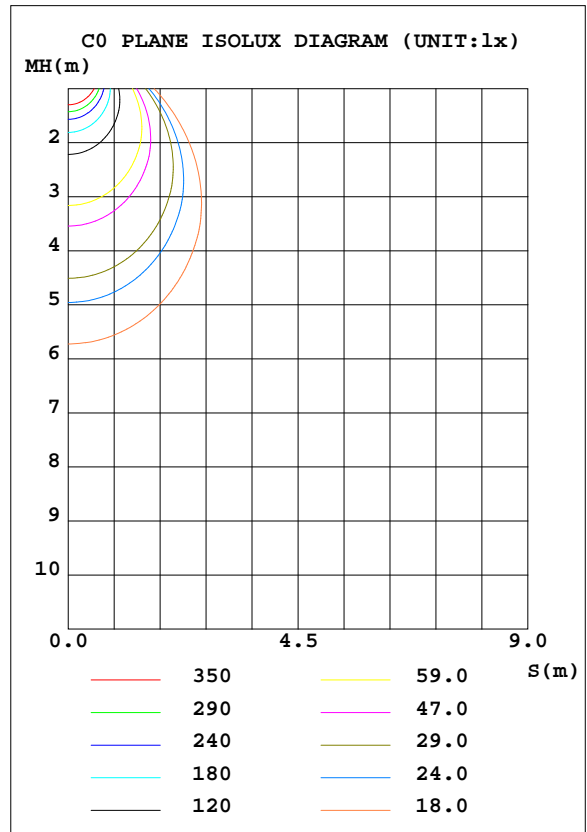
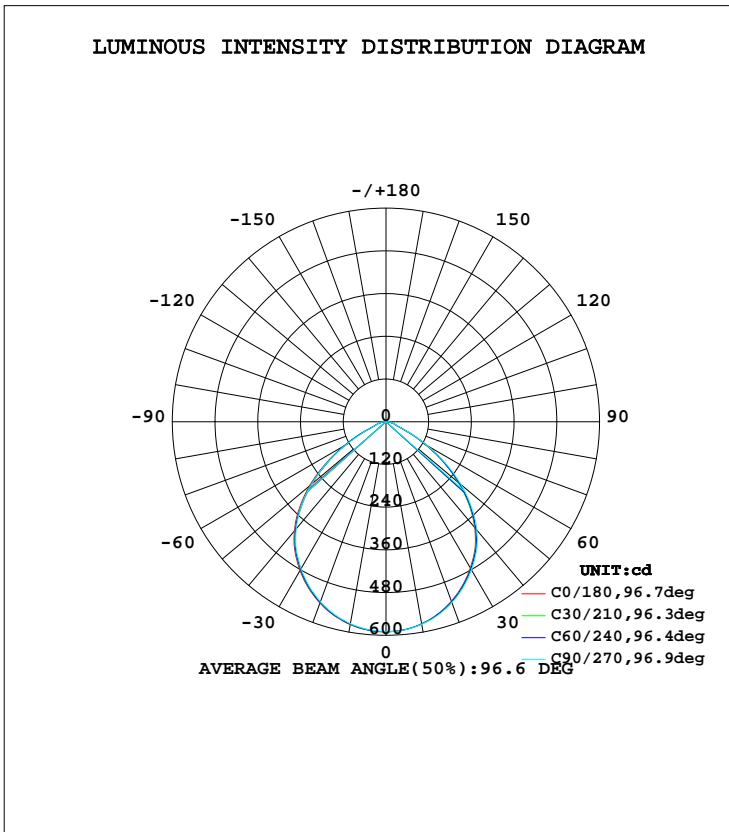


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:240.8V I:0.0580A P:13.40W PF:0.9520 Lamp Flux:1269.67x1 lm		
NAME: ID13W-CC	TYPE:13W	WEIGHT:
DIM.:	SPEC.:4000K	SERIAL No.:1
MFR.:	SUR.:0.051	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 94.75 lm/W			
MODEL	ID13W-CC	Imax(cd)	589.9	S/MH(C0/180)	1.20
NOMINAL POWER(W)	13	LOR(%)	100.0	S/MH(C90/270)	1.22
RATED VOLTAGE(V)	240	TOTAL FLUX(lm)	1269.7	η UP, DN(C0-180)	0.0, 50.0
NOMINAL FLUX(lm)	1269.67	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 50.0
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	240.8	η down(%)	100.0	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMAN
 Test Date:2020-05-08

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:9.443m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	Φ lum,lamp
10	576.1	576.8	577.7	577.7	578.7	577.5	576.0	576.2	0- 10	55.70	55.70	4.39,4.39
20	536.7	538.6	540.9	541.0	542.4	540.1	538.1	537.3	10- 20	158.2	213.9	16.8,16.8
30	474.2	476.6	480.6	481.2	482.7	479.4	476.7	475.5	20- 30	235.5	449.4	35.4,35.4
40	387.9	391.6	397.4	399.1	400.5	395.4	392.2	391.6	30- 40	274.9	724.3	57,57
50	265.9	268.2	276.1	280.1	280.5	272.7	272.1	271.6	40- 50	259.3	983.5	77.5,77.5
60	125.6	131.0	133.0	134.5	137.3	134.1	130.0	128.7	50- 60	180.7	1164	91.7,91.7
70	31.81	32.80	33.62	33.68	35.21	34.16	33.23	32.33	60- 70	72.48	1237	97.4,97.4
80	14.77	14.42	16.14	15.04	16.35	14.84	15.64	14.48	70- 80	25.50	1262	99.4,99.4
90	0	0	0	0	0.1915	0.0987	0.0838	0.0896	80- 90	7.509	1270	100,100
100									90-100			
110									100-110			
120									110-120			
130									120-130			
140									130-140			
150									140-150			
160									150-160			
170									160-170			
180									170-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

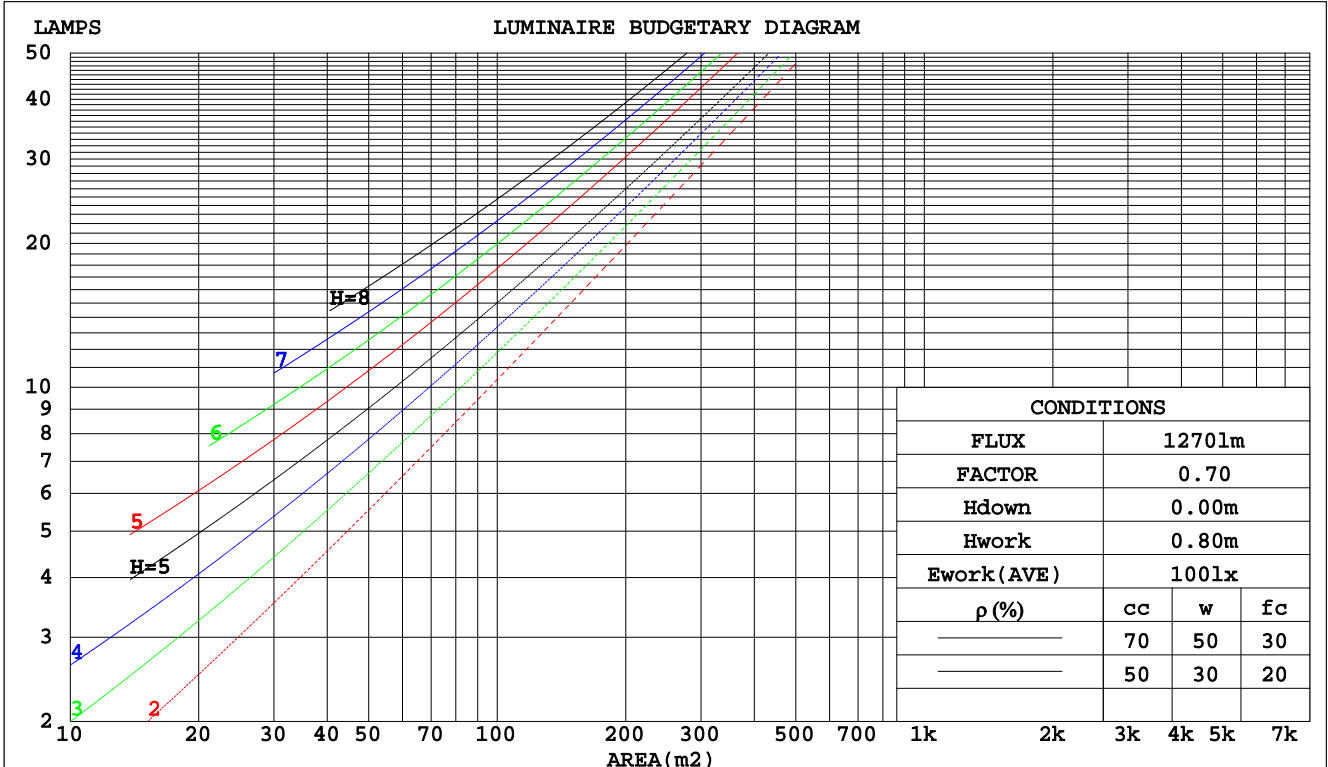
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMAN
 Test Date:2020-05-08

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:9.443m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:240.8V I:0.0580A P:13.40W PF:0.9520 Lamp Flux:1269.67x1 lm		
NAME: ID13W-CC	TYPE:13W	WEIGHT:
DIM.:	SPEC.:4000K	SERIAL No.:1
MFR.:	SUR.:0.051	PROTECTION ANGLE:

pcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pw																0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio Coefficients of Utilization(CU)															
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1.0	1.07	1.04	1.00	1.05	1.02	.99	1.01	.98	.96	.97	.95	.93	.93	.92	.90	.88
2.0	.96	.90	.85	.94	.89	.84	.90	.86	.82	.87	.84	.80	.84	.81	.79	.77
3.0	.86	.79	.73	.84	.78	.72	.81	.76	.71	.79	.74	.70	.76	.72	.69	.67
4.0	.77	.69	.63	.76	.68	.63	.73	.67	.62	.71	.66	.61	.69	.64	.60	.58
5.0	.69	.61	.55	.68	.61	.55	.66	.60	.55	.64	.59	.54	.63	.58	.54	.52
6.0	.63	.55	.49	.62	.54	.49	.60	.54	.48	.59	.53	.48	.57	.52	.48	.46
7.0	.57	.49	.44	.57	.49	.44	.55	.48	.43	.54	.48	.43	.53	.47	.43	.41
8.0	.53	.45	.39	.52	.45	.39	.51	.44	.39	.50	.43	.39	.48	.43	.39	.37
9.0	.49	.41	.36	.48	.41	.36	.47	.40	.35	.46	.40	.35	.45	.39	.35	.33
10.0	.45	.37	.33	.44	.37	.32	.43	.37	.32	.43	.36	.32	.42	.36	.32	.30



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMAN
 Test Date: 2020-05-08

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity: 65.0%
 Test Distance: 9.443m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:240.8V I:0.0580A P:13.40W PF:0.9520 Lamp Flux:1269.67x1 lm		
NAME: ID13W-CC	TYPE:13W	WEIGHT:
DIM.:	SPEC.:4000K	SERIAL No.:1
MFR.:	SUR.:0.051	PROTECTION ANGLE:

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.250	.142	.045	.243	.139	.044	.230	.132	.042	.218	.126	.040	.207	.120	.039	
2.0	.243	.133	.041	.237	.130	.040	.225	.125	.039	.215	.121	.038	.205	.116	.037	
3.0	.230	.123	.037	.225	.121	.036	.215	.117	.035	.206	.113	.035	.198	.109	.034	
4.0	.217	.113	.033	.213	.111	.033	.204	.108	.032	.196	.105	.032	.188	.102	.031	
5.0	.205	.104	.030	.201	.103	.030	.193	.100	.030	.186	.098	.029	.179	.096	.029	
6.0	.193	.097	.028	.189	.095	.027	.182	.093	.027	.176	.091	.027	.170	.089	.027	
7.0	.181	.090	.025	.178	.089	.025	.172	.087	.025	.166	.085	.025	.161	.084	.025	
8.0	.171	.084	.024	.168	.083	.023	.163	.081	.023	.158	.080	.023	.153	.078	.023	
9.0	.162	.078	.022	.159	.078	.022	.154	.076	.022	.149	.075	.021	.145	.074	.021	
10.0	.153	.073	.020	.151	.073	.020	.146	.072	.020	.142	.071	.020	.138	.069	.020	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.176	.157	.139	.151	.134	.120	.103	.093	.083	.059	.054	.048	.019	.017	.016	
2.0	.166	.132	.104	.142	.114	.090	.097	.079	.063	.056	.046	.037	.018	.015	.012	
3.0	.157	.114	.080	.134	.098	.069	.092	.068	.049	.053	.040	.029	.017	.013	.009	
4.0	.149	.100	.063	.128	.087	.055	.088	.060	.039	.051	.035	.023	.016	.012	.008	
5.0	.142	.090	.051	.122	.077	.044	.084	.054	.031	.049	.032	.019	.016	.010	.006	
6.0	.135	.081	.042	.116	.070	.037	.080	.049	.026	.046	.029	.015	.015	.009	.005	
7.0	.129	.074	.036	.111	.064	.031	.077	.045	.022	.044	.026	.013	.014	.009	.004	
8.0	.123	.068	.031	.106	.059	.027	.073	.042	.019	.043	.024	.011	.014	.008	.004	
9.0	.117	.063	.027	.101	.055	.023	.070	.039	.017	.041	.023	.010	.013	.007	.003	
10.0	.112	.059	.024	.097	.051	.021	.067	.036	.015	.039	.021	.009	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMAN
 Test Date:2020-05-08

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:9.443m [K=1.0000]
 Remarks:

Uncorrected UGR Table

Test:U:240.8V I:0.0580A P:13.40W PF:0.9520 Lamp Flux:1269.67x1 lm										
NAME: ID13W-CC					TYPE:13W			WEIGHT:		
DIM.:					SPEC.:4000K			SERIAL No.:1		
MFR.:					SUR.:0.051			PROTECTION ANGLE:		
ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
x = 2H y = 2H	25.4	26.7	25.6	26.9	27.1	25.5	26.8	25.7	27.0	27.2
3H	25.5	26.7	25.7	26.9	27.1	25.6	26.8	25.9	27.1	27.3
4H	25.5	26.6	25.8	26.9	27.1	25.6	26.8	25.9	27.0	27.3
6H	25.5	26.6	25.8	26.8	27.1	25.7	26.8	26.0	27.0	27.3
8H	25.5	26.5	25.8	26.8	27.1	25.7	26.7	26.0	27.0	27.3
12H	25.5	26.5	25.8	26.8	27.1	25.6	26.7	26.0	26.9	27.2
4H 2H	25.5	26.6	25.8	26.9	27.1	25.6	26.8	25.9	27.0	27.3
3H	25.6	26.7	26.0	26.9	27.2	25.8	26.8	26.1	27.1	27.4
4H	25.7	26.6	26.1	26.9	27.3	25.9	26.8	26.2	27.1	27.4
6H	25.8	26.6	26.2	27.0	27.3	25.9	26.7	26.3	27.1	27.4
8H	25.8	26.6	26.2	26.9	27.3	26.0	26.7	26.4	27.1	27.5
12H	25.8	26.5	26.3	26.9	27.3	26.0	26.7	26.4	27.1	27.5
8H 4H	25.7	26.4	26.1	26.8	27.2	25.8	26.6	26.2	26.9	27.3
6H	25.8	26.4	26.3	26.8	27.3	26.0	26.6	26.4	27.0	27.4
8H	25.9	26.4	26.4	26.9	27.3	26.0	26.6	26.5	27.0	27.4
12H	26.0	26.4	26.4	26.9	27.3	26.1	26.5	26.6	27.0	27.5
12H 4H	25.7	26.3	26.1	26.7	27.1	25.8	26.5	26.2	26.8	27.2
6H	25.8	26.4	26.3	26.8	27.2	25.9	26.5	26.4	26.9	27.3
8H	25.9	26.4	26.4	26.8	27.3	26.0	26.5	26.5	26.9	27.4
Variations with the observer position at spacings:										
S = 1.0H	+ 0.7 / - 0.9					+ 0.7 / - 0.8				
1.5H	+ 0.3 / - 0.5					+ 0.4 / - 0.6				
2.0H	+ 1.3 / - 2.0					+ 1.3 / - 2.1				

CIE Pub.117 Corrected 1270 lm Total Lamp Luminous Flux.(8log(F/F0) = 0.8)

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMAN
 Test Date:2020-05-08

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:9.443m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:240.8V I:0.0580A P:13.40W PF:0.9520 Lamp Flux:1269.67x1 lm		
NAME: ID13W-CC	TYPE:13W	WEIGHT:
DIM.:	SPEC.:4000K	SERIAL No.:1
MFR.:	SUR.:0.051	PROTECTION ANGLE:

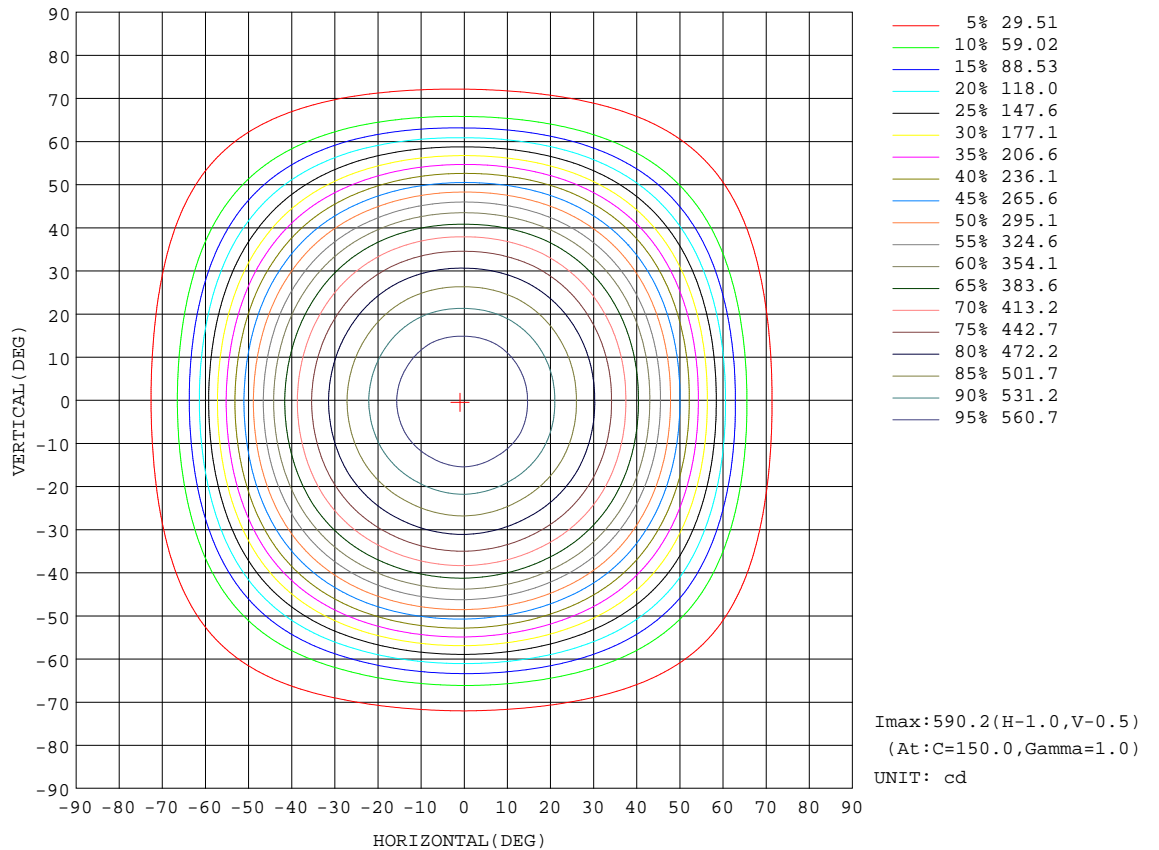
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	64	54	47	63	53	47	62	53	47	41
0.80	75	64	58	74	64	58	72	63	57	51
1.00	83	74	68	82	73	67	80	74	67	61
1.25	90	81	75	89	81	75	86	79	74	68
1.50	94	86	81	93	86	80	90	84	79	73
2.00	100	93	88	99	92	88	95	90	86	79
2.50	103	97	92	101	96	91	98	93	89	82
3.00	106	101	96	104	99	95	100	96	93	85
4.00	109	105	101	107	103	99	103	100	97	89
5.00	111	107	104	109	105	102	104	102	99	90
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMAN
 Test Date:2020-05-08

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:9.443m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:240.8V I:0.0580A P:13.40W PF:0.9520 Lamp Flux:1269.67x1 lm		
NAME: ID13W-CC	TYPE:13W	WEIGHT:
DIM.:	SPEC.:4000K	SERIAL No.:1
MFR.:	SUR.:0.051	PROTECTION ANGLE:

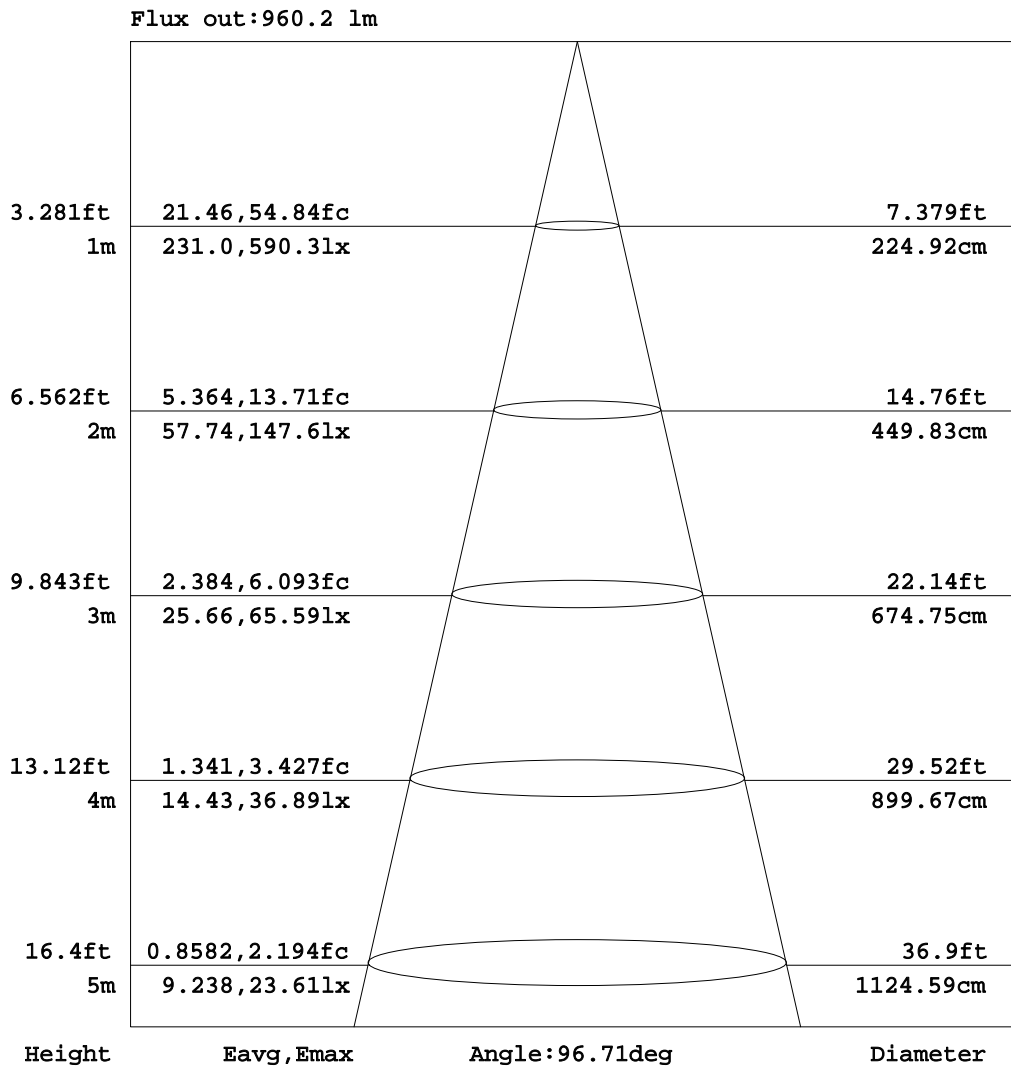


C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMAN
 Test Date: 2020-05-08

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity: 65.0%
 Test Distance: 9.443m [K=1.0000]
 Remarks:

AAI Figure

Test:U:240.8V I:0.0580A P:13.40W PF:0.9520 Lamp Flux:1269.67x1 lm		
NAME: ID13W-CC	TYPE:13W	WEIGHT:
DIM.:	SPEC.:4000K	SERIAL No.:1
MFR.:	SUR.:0.051	PROTECTION ANGLE:



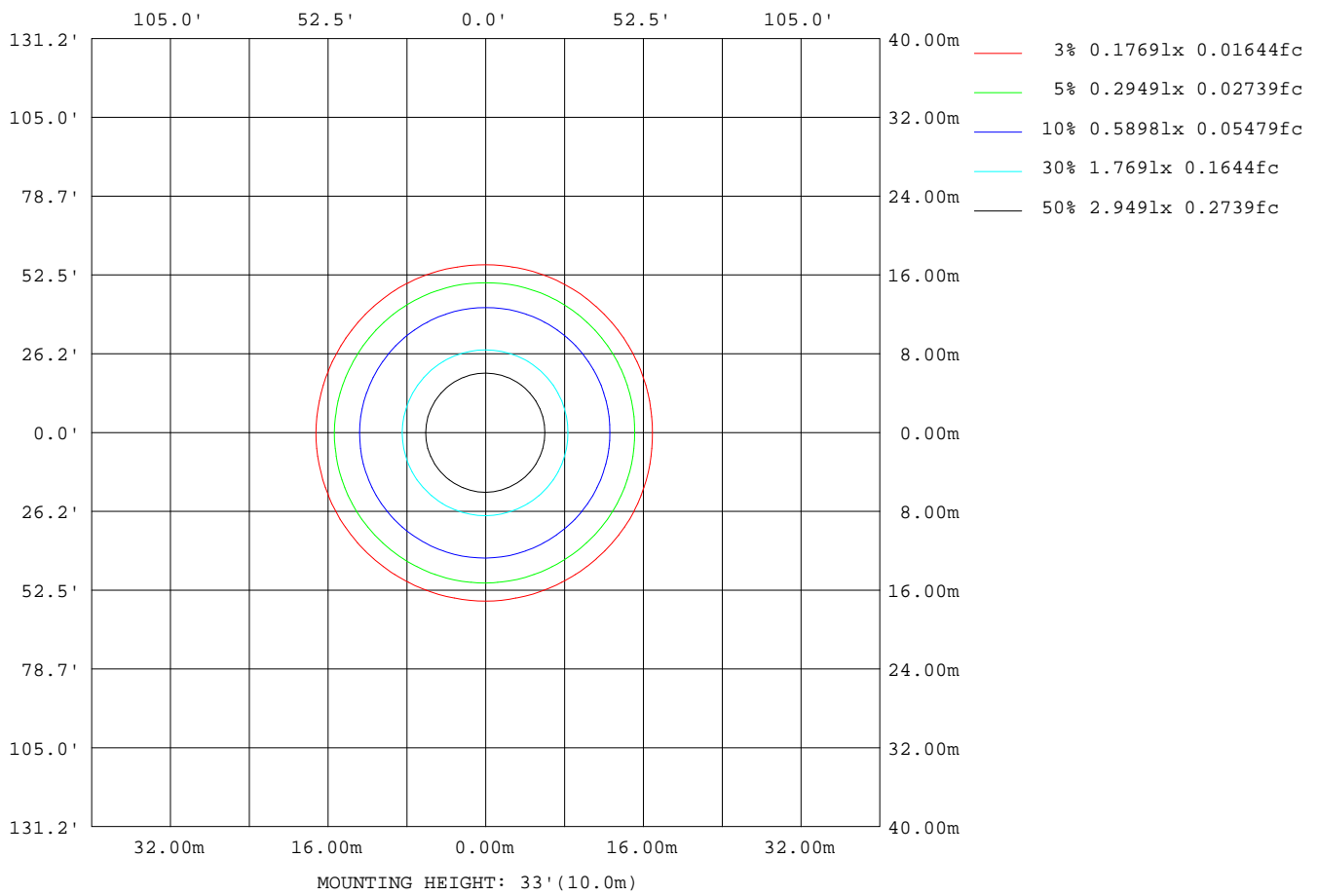
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMAN
 Test Date:2020-05-08

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:9.443m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

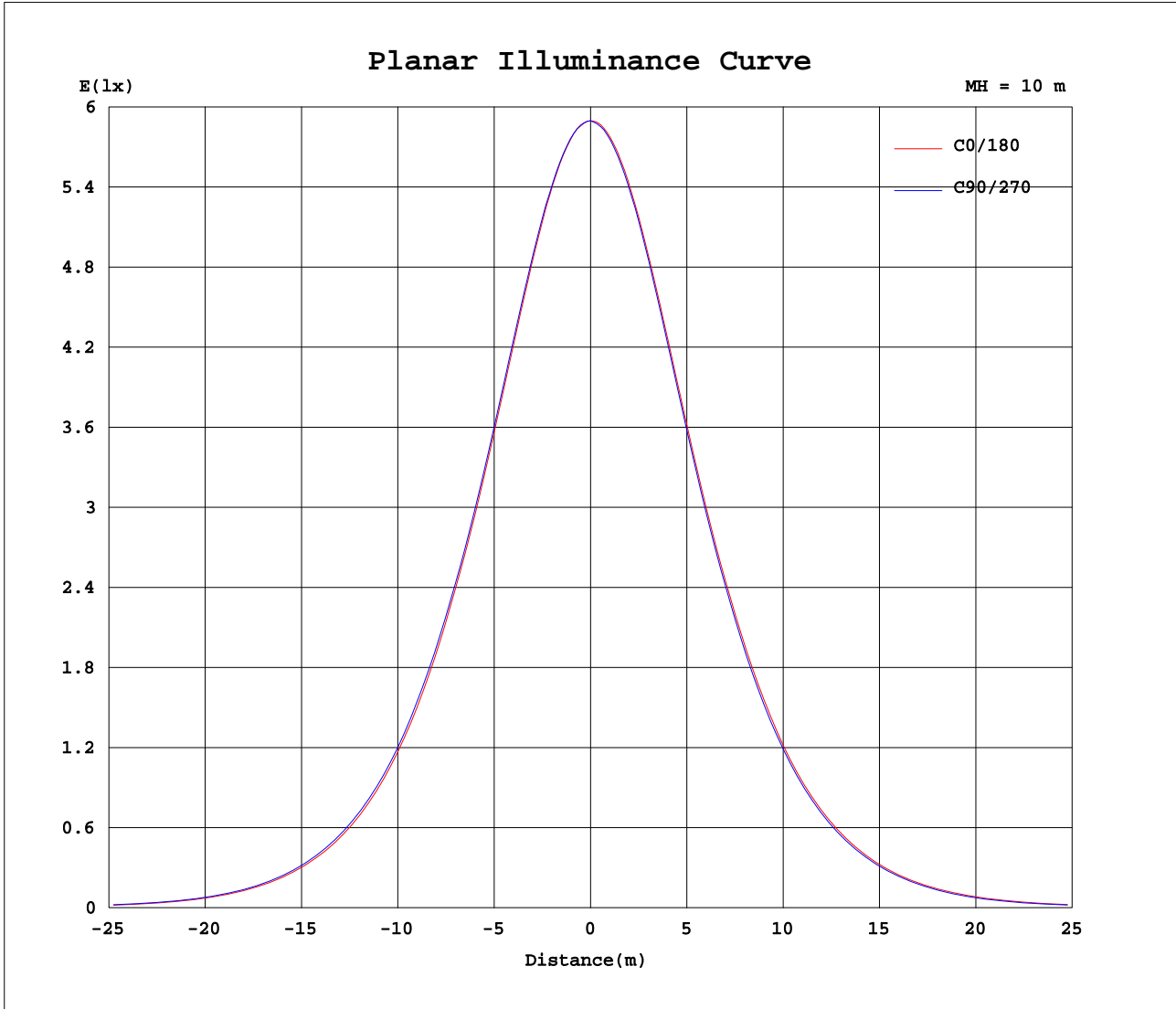
Test:U:240.8V I:0.0580A P:13.40W PF:0.9520 Lamp Flux:1269.67x1 lm		
NAME: ID13W-CC	TYPE:13W	WEIGHT:
DIM.:	SPEC.:4000K	SERIAL No.:1
MFR.:	SUR.:0.051	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMAN
 Test Date:2020-05-08

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:9.443m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMAN
 Test Date: 2020-05-08

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity: 65.0%
 Test Distance: 9.443m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:240.8V I:0.0580A P:13.40W PF:0.9520 Lamp Flux:1269.67x1 lm		
NAME: ID13W-CC	TYPE:13W	WEIGHT:
DIM.:	SPEC.:4000K	SERIAL No.:1
MFR.:	SUR.:0.051	PROTECTION ANGLE:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	30	60	90	120	150	180	210	240	270	300	330										
0	590	590	590	590	590	590	590	590	590	590	590	590										
5	587	587	587	587	587	587	587	587	587	586	586	586										
10	576	577	577	578	577	578	579	578	577	576	577	576										
15	560	561	561	563	562	563	564	562	562	560	560	559										
20	537	538	539	541	540	541	542	540	540	538	538	536										
25	508	510	511	513	513	514	515	513	512	510	510	508										
30	474	476	477	481	480	482	483	480	479	477	477	475										
35	436	438	440	443	443	445	446	443	442	439	440	437										
40	388	391	392	397	398	400	400	396	395	392	394	390										
45	331	332	335	340	343	345	344	339	337	336	336	334										
50	266	267	270	276	279	281	280	273	272	272	273	270										
55	196	198	199	205	207	210	210	203	202	202	203	200										
60	126	131	131	133	133	136	137	134	134	130	130	127										
65	64.3	69.8	70.6	70.5	68.7	71.7	74.4	73.0	71.7	66.9	65.7	63.5										
70	31.8	32.6	32.9	33.6	33.2	34.1	35.2	34.3	34.0	33.2	32.7	32.0										
75	23.3	24.0	23.5	24.6	23.9	24.9	25.3	25.1	24.6	24.5	23.8	23.6										
80	14.8	15.4	13.4	16.1	13.8	16.3	16.4	15.9	13.8	15.6	13.9	15.0										
85	6.38	7.00	6.63	7.64	6.90	7.73	7.53	7.10	6.36	6.81	6.13	6.54										
90	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.13	0.07	0.08	0.10	0.08										

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMAN
Test Date: 2020-05-08

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.276
Humidity: 65.0%
Test Distance: 9.443m [K=1.0000]
Remarks: